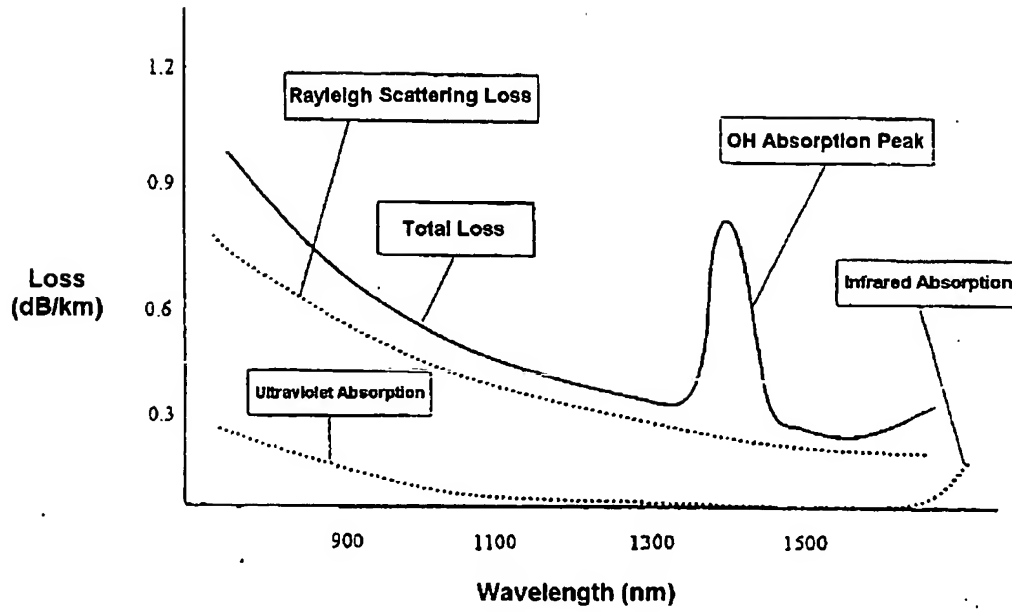


Fig. 1



The diagram illustrates a multi-channel optical communication system. On the left, a transmitter (Tx) with multiple channels (21) is shown. The signal travels through a series of optical amplifiers (23) and dispersion compensating fibers (DCF) (25). The total distance between the amplifiers is 480 km, and the length of each DCF is 80 km. The system is designed to compensate for chromatic dispersion, with a dispersion coefficient of 3 ps/nm-km. The receiver (Rx) (22) is shown on the right.

A line graph showing the relationship between Dispersion (ps/nm) on the y-axis and Length (km) on the x-axis. The y-axis has major ticks at 0, 50, 100, 150, 200, and 250. The x-axis has major ticks at 0, 20, 40, 60, and 80. A solid black line starts at the origin (0,0) and increases linearly to approximately (80, 240).

Length (km)	Dispersion (ps/nm)
0	0
20	60
40	120
60	180
80	240

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Fig. 3a

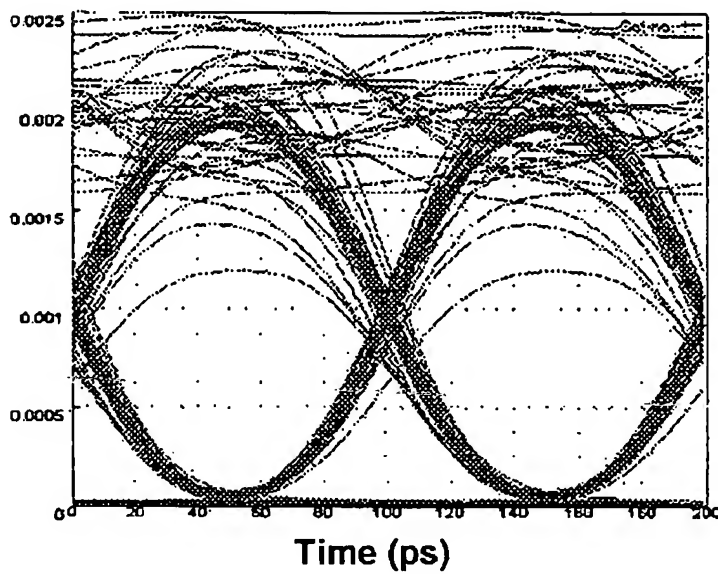
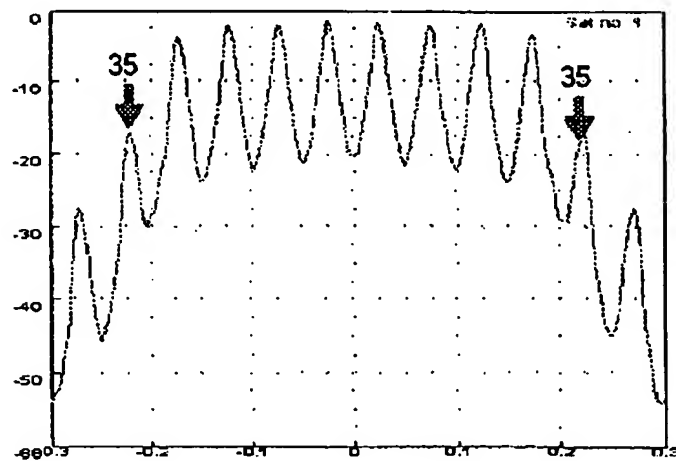


Fig. 3b

### Optical Spectrum

Power (dBm)



Optical Frequency at 193.1 THz

Fig. 4a

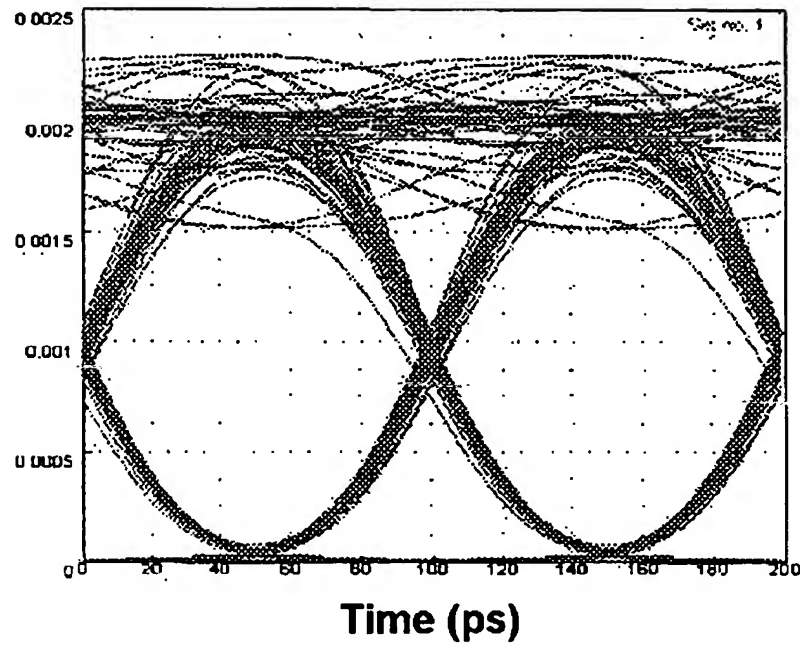


Fig. 4b

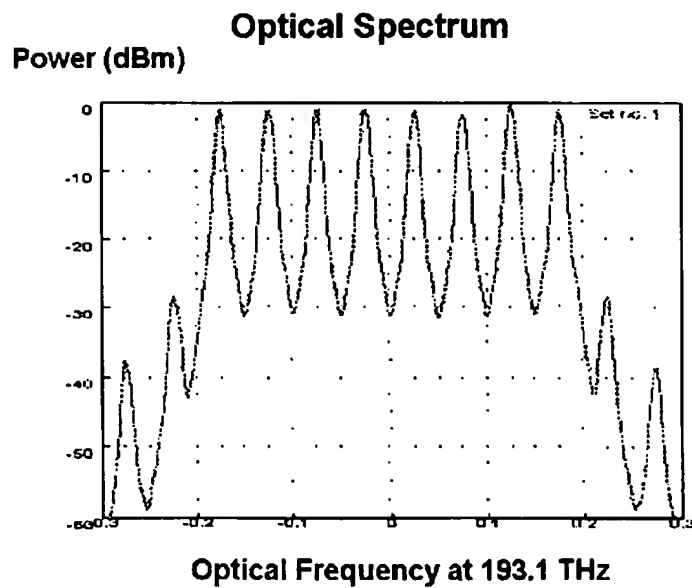


Fig. 5

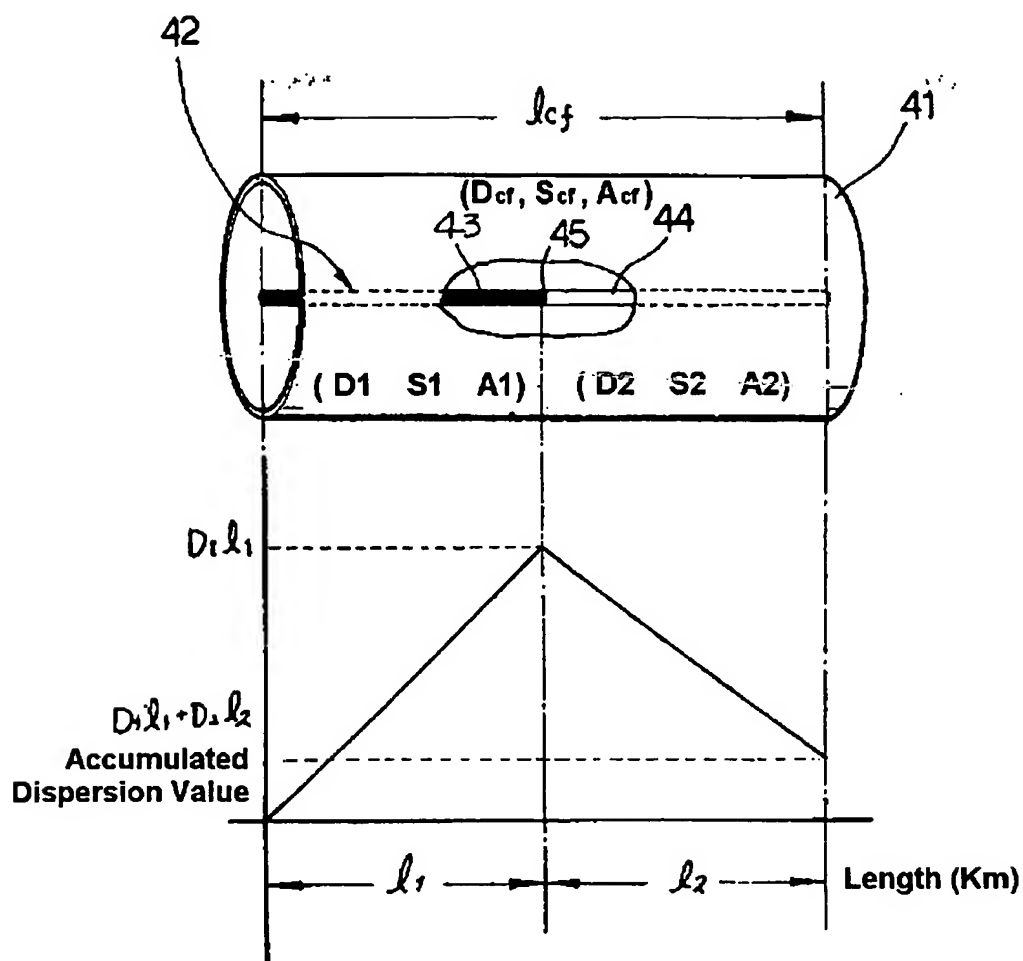


Fig. 6a

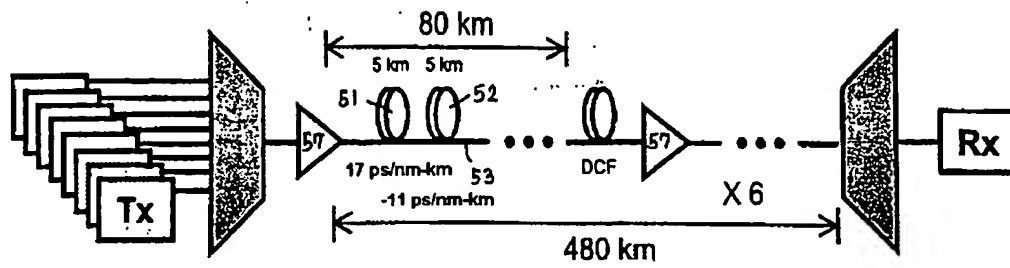
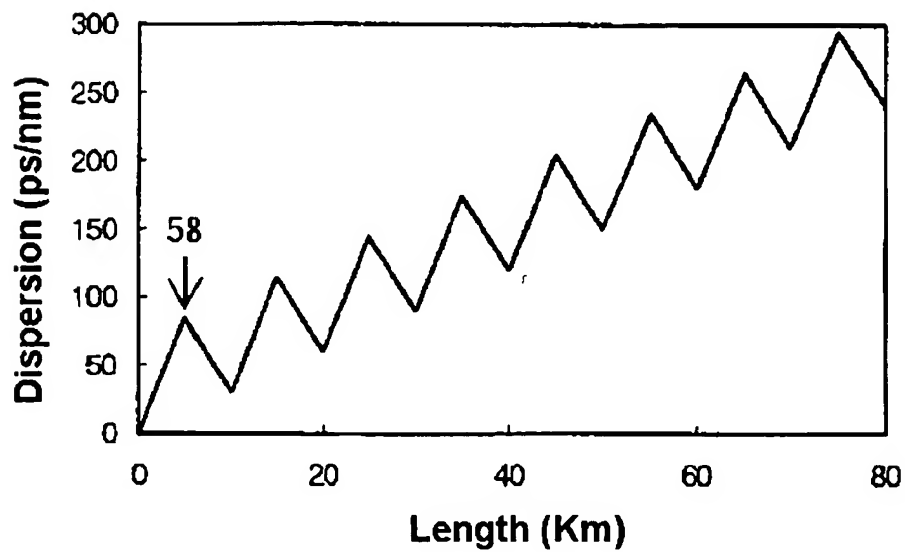


Fig. 6b



$$D_{cf} = 3.0 \text{ ps/nm-km}$$

Fig. 7a

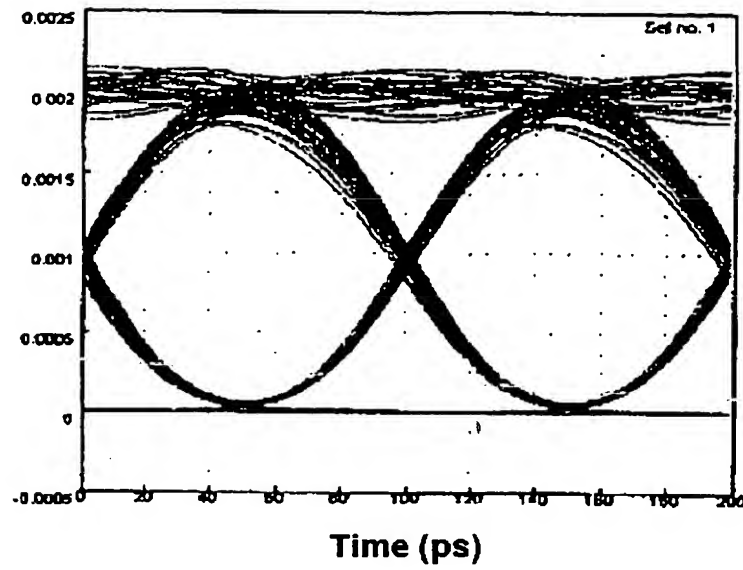


Fig. 7b

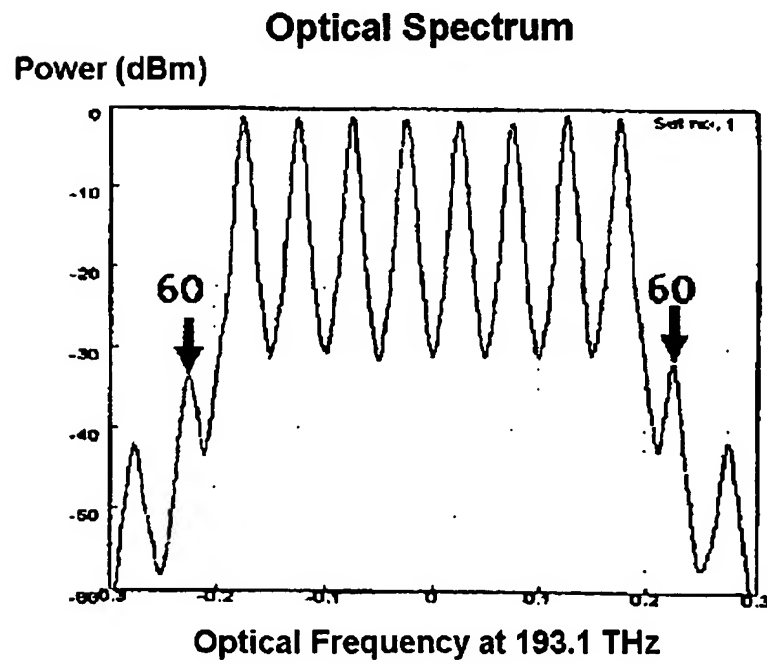


Fig. 8

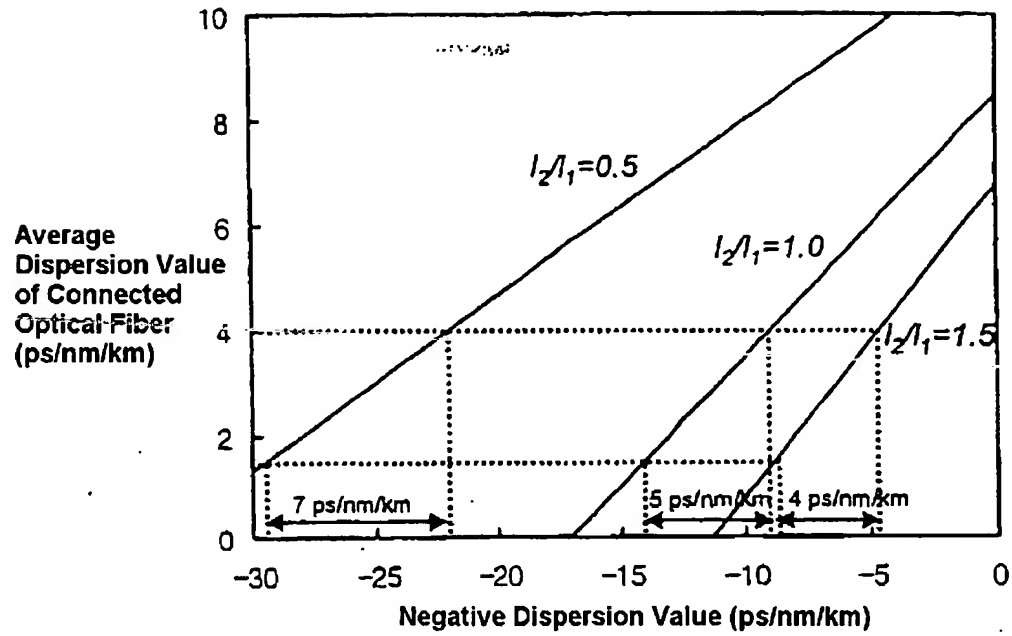




Fig. 9a

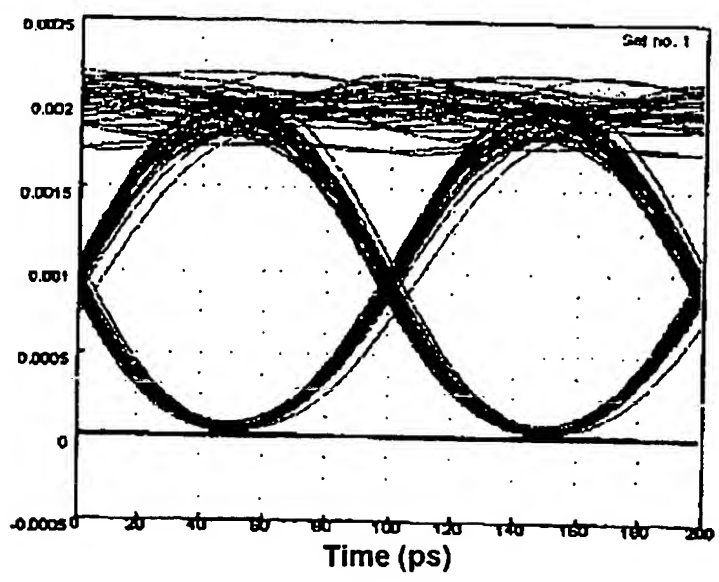


Fig. 9b

**Optical Spectrum**

Power (dBm)

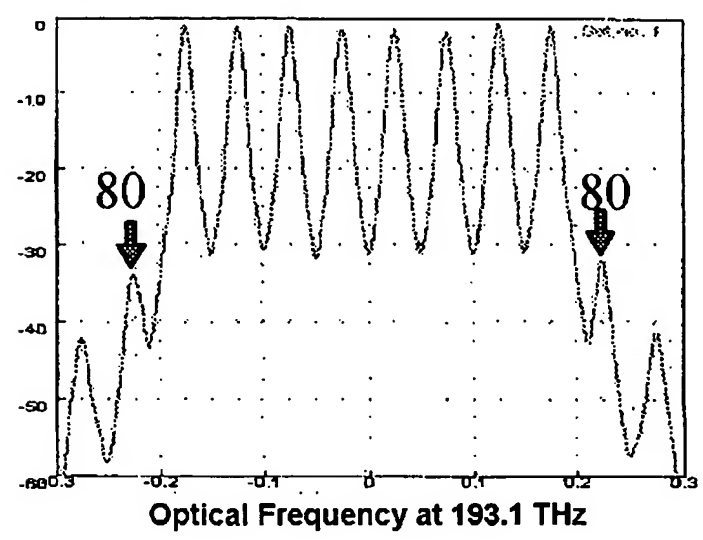


Fig. 10

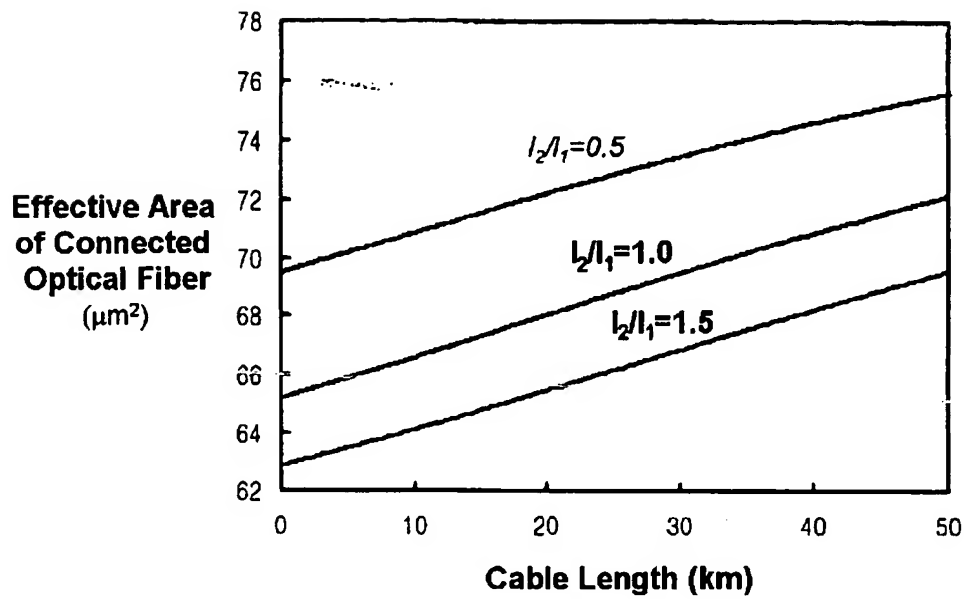


Fig. 11

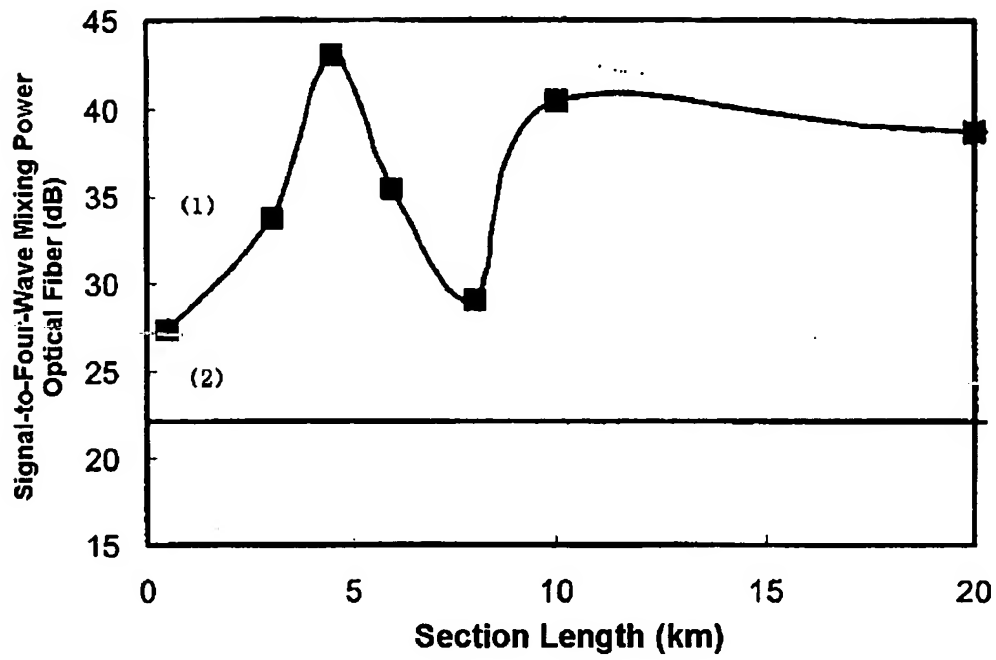


Fig. 12

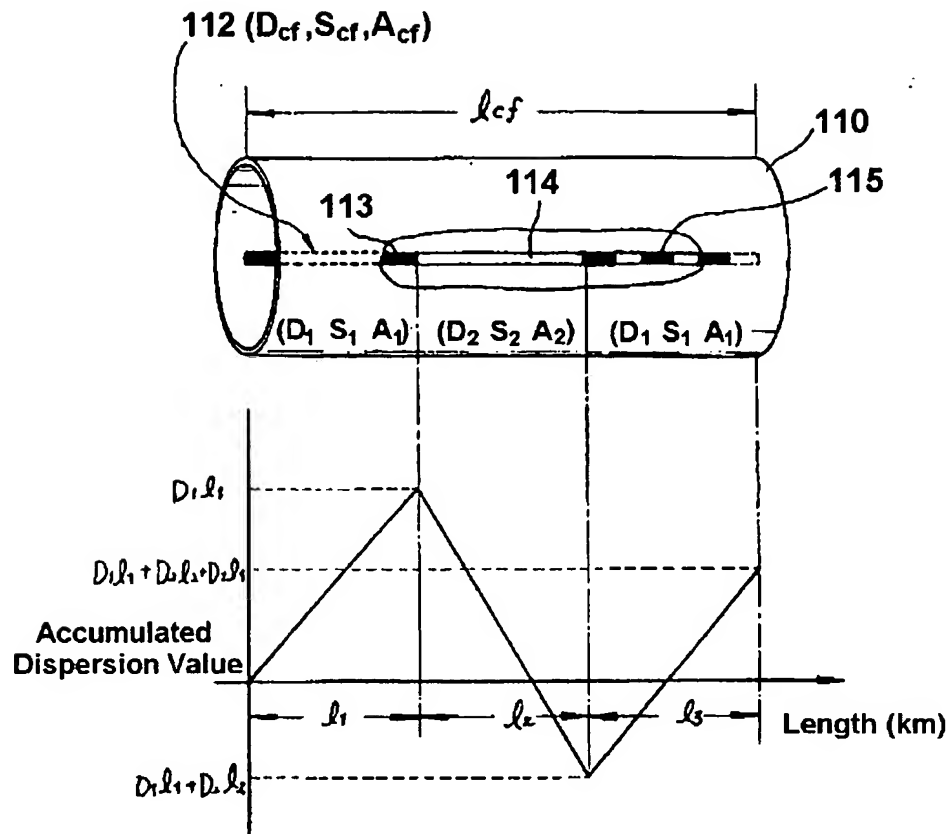


Fig. 13a

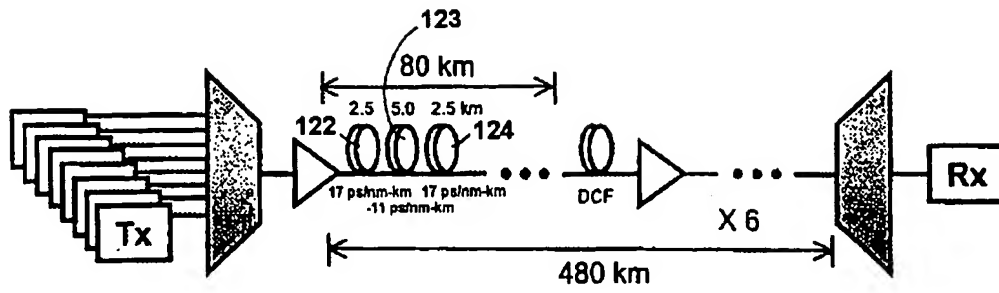
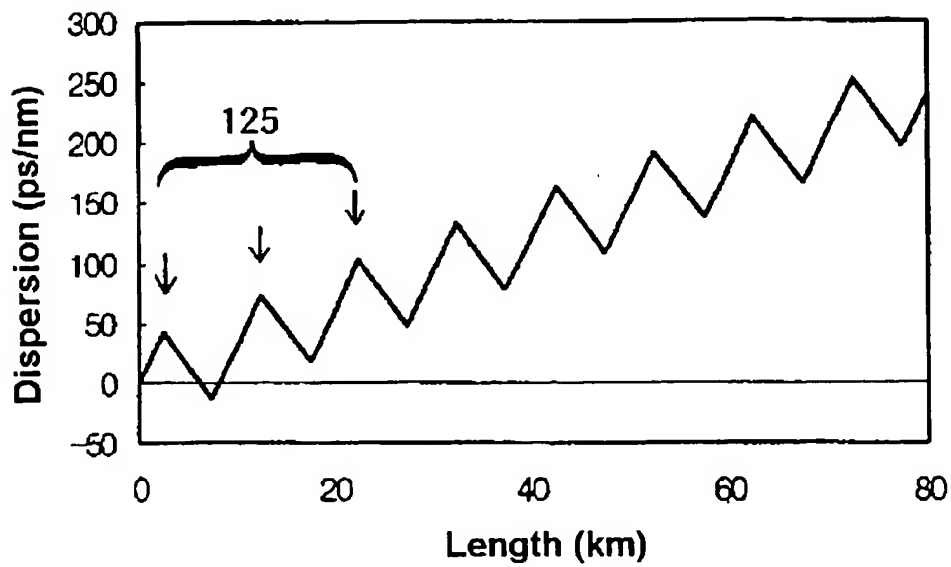


Fig. 13b



$$D_{cf} = 3.0 \text{ ps/nm-km}$$

Fig. 14a

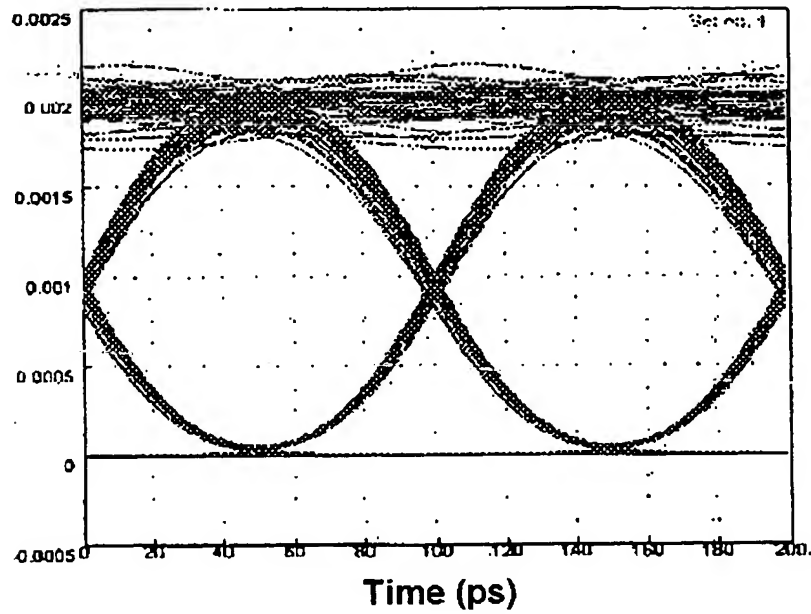


Fig. 14b

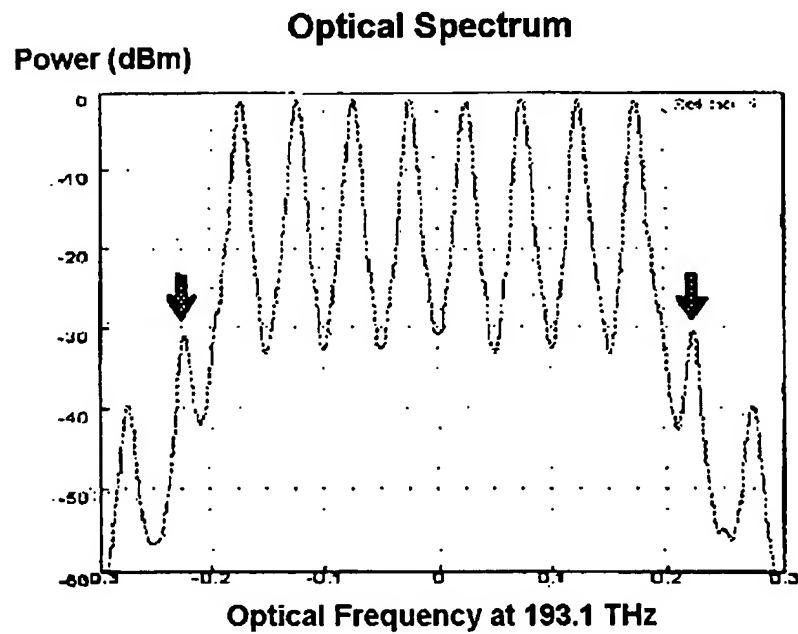


Fig. 15a

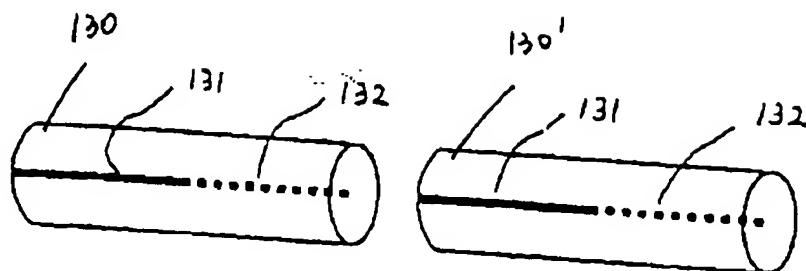


Fig. 15b

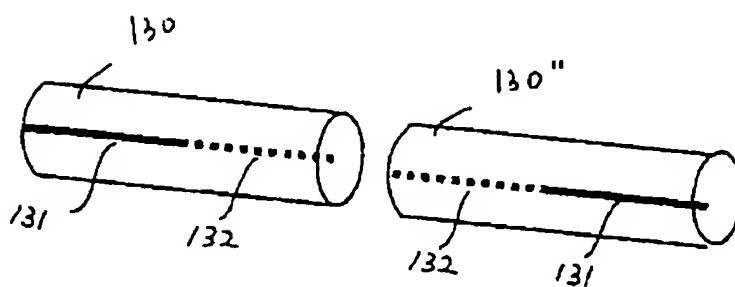


Fig. 15c

